

REMARKS

Upon entry of this Amendment, claims 1 to 12 and 14 to 19 will be pending, of which, claims 1 and 19 are independent. Claim 13 has been cancelled. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

The present application relates to "pin-fin" heat exchangers containing a stack of perforated metal plates. These plates contain column precursors joined together by ligaments which allow for fluid flow across the face of the plate. When these plates are stacked, the column precursors of one plate align with the coincident precursors of the plates above and below resulting in an array of individual columns perpendicular to the plane of the plates. In addition, the plates comprise loops that result in the formation of tanks at the sides upon stacking the plates.

Claims 4 to 18 stand objected to under 37 C.F.R. §1.75(c) as being improperly dependent. These claims have been amended to overcome the objection.

Claim 3 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 3 refers to unperforated plates (S) at the top and bottom of the stack. The Examiner contends that the unperforated plates (S) contain perforations (59). The Applicants respectfully disagree because 59 is not a perforation in the plate but rather an aperture at the corner of the plate. This aperture is formed from the metal loop 58. When the plates are stacked, the individual apertures on each plate form tanks through which inlets and outlets to and from the stack can be positioned. The aperture 59 on plate S (figure 13) is similar to aperture 13 as described for figure 1 on page 10, 5th paragraph in the specification as filed.

Claims 1 and 19 were rejected under 35 U.S.C. §102(b) as being anticipated by Schubart (U.S. Pat. No. 1,734,274). Claims 1, 3/1, and 19 were rejected under 35 U.S.C. §102(b) as being anticipated by McMahon *et al.* (U.S. Pat. No. 2,537,276). Claims 1 to 3 and 19 were rejected under 35 U.S.C. §102(b) as being anticipated by Nguyen (U.S. Pat. No. 5,016,707).

Claims 1 and 19 have been amended to incorporate the limitations of claim 13 (which has been cancelled) and to recite the ability of the plates for fluid flow across the plane of the plate. Support for these amendments can be found in the specification as filed. For example, fluid flow across the plane (or face) of the plate can be found on page 12, 2nd paragraph.

Similarly, the formation of tanks on the sides of the stack from the individual plate loops can be found on page 10, 5th paragraph. As amended, these claims are not taught by any of these references for at least the following reasons.

None of the references cited disclose the ability of fluid flow within the plane of the plate, much less the loops on the plate, which when stacked form tanks on the sides of the stack. Consequently, the present invention is not anticipated by any of the cited prior art.

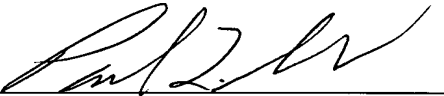
Inventor(s): SYMONDS
Serial Number: 09/719,416
Attorney Docket Number: 007627-0275379

CONCLUSION

As all the objections and rejections noted in the Office Action have been addressed, Applicants request reconsideration of the present application and submit that this application is in condition for allowance. A timely Notice to that effect is respectfully requested. Should questions relating to patentability remain, the Examiner is invited to contact the undersigned to discuss the same.

Respectfully submitted,

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AUG 01 2003

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